

# GENERAL NOTES:

- 1) ALL WIRE AND CONDUIT MUST BE INSTALLED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS, AND MUST MEET ALL APPLICABLE CODES.
- 2) ALL WIRE AND CABLE MUST BE RATED FOR FIRE ALARM USE PER THE LATEST REVISIONS OF THE NATIONAL ELECTRICAL CODE SECTION 760. THIS IS A POWER LIMITED FIRE ALARM SYSTEM. ALL CABLE MUST BE MARKED FPL, FPLR, CI OR FPLP.
- 3) ALL CONDUCTORS MUST TEST FREE OF GROUND BEFORE MAKING CONNECTION TO THE FIRE ALARM CONTROL PANEL.
- 4) TO RETAIN WARRANTY, THE FIRE ALARM EQUIPMENT MUST BE POWERED UP UNDER THE DIRECTION OF A QUALIFIED MANUFACTURERS TECHNICIAN.
- 5) THE LIFE SAFETY SYSTEM IS A COMPLETELY SUPERVISED SYSTEM.
- 6) INSTALLING ELECTRICAL CONTRACTOR SHALL COORDINATE ALL FIELD CHANGES WITH THE FIRE ALARM CONTRACTOR INCLUDING CHANGES IN DEVICES, WIRE, CONDUIT RUNS AND OPERATION IN THE SYSTEM. FIRE ALARM CONTRACTOR SHALL NOT BE HELD RESPONSIBLE FOR UNDOCUMENTED CHANGES, OR THE RESULTS CAUSED BY THOSE CHANGES.
- 7) LIFE SAFETY AUDIBLE SHALL BE AUDIBLE THROUGHOUT THE SPACE AND SHALL HAVE A SOUND PRESSURE LEVEL NOT LESS THAN 15db ABOVE AMBIENT NOISE LEVEL MEASURED AT 4'0" ABOVE FINISHED FLOOR.
- 8) MAIN BUILDING FIRE ALARM & SUPPRESSION SYSTEMS SHALL BE CLASS "B" IN CONFIGURATION. PRE-ACTION & DELUGE ALARM SYSTEMS SHALL BE CLASS "A" IN CONFIGURATION. CLASS "A" APPLICATIONS SHALL MAINTAIN A MINIMUM SEPARATION OF 4 FEET BETWEEN FEED AND RETURN CIRCUITS.
- 9) LOCATE ALL PULL STATIONS AND HORN/STROBE UNITS AT SPECIFIED HEIGHTS PER NFPA 72 AND ADA SEE DETAIL SHEET.
- 10) SMOKE DETECTOR LOCATIONS ARE FOR REFERENCE ONLY AND SHALL BE INSTALLED PER NFPA 72.
- 11) ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ROUGH-IN INSTALLATION WITH THE FIRE ALARM CONTRACTOR.
- 12) SMOKE DETECTORS ON CEILINGS MUST BE NO MORE THAN 15' FROM A WALL, AND/OR NO MORE THAN 30' FROM EACH OTHER. REDUCED SPACING MAY ALSO BE REQUIRED. SEE PLAN DRAWINGS FOR PROJECT-SPECIFIC LOCATIONS.
- 13) ALL FIRE ALARM DEVICES SHALL BE RIGIDLY AND SECURELY FASTENED TO WALLS OR CEILINGS.
- 14) NO SMOKE DETECTOR SHALL BE LOCATED CLOSER THAN 36" TO ANY AIR REGISTER OR DIFFUSER.
- 15) NO HEAT DETECTOR SHALL BE LOCATED CLOSER THAN 24" TO ANY AIR REGISTER OR DIFFUSER.
- 16) NO HEAT DETECTOR SHALL BE LOCATED CLOSER THAN 36" TO ANY PART OF ANY HEAT GENERATING DEVICE (FUSES, BOILERS, WATER HEATERS, ETC.) IN MECHANICAL ROOMS.
- 17) NO HEAT DETECTOR SHALL BE LOCATED CLOSER THAN 18" TO ANY PART OF ANY LIGHT FIXTURE.
- 18) INITIATING AND SIGNALING CIRCUITS ARE SEPARATE YET MAY BE RUN IN SAME CONDUIT.
- 19) ALL CONDUCTORS SHALL BE LABELED BY ZONE AND ALL COLOR CODES SHALL MATCH.
- 20) DEVICES THAT ARE UNABLE TO BE INSTALLED PERMANENTLY DURING DEVICE TRIM SHALL BE SPLICED THROUGH TO ALLOW DEVICES AND CIRCUIT DOWNSTREAM TO BE PRE-TESTED. THIS INCLUDES ALL CIRCUITS (SPEAKER CIRCUITS, STROBE CIRCUITS, ADDRESSABLE LOOP CIRCUITS, 24VDC CIRCUITS, FIREFIGHTERS TELEPHONE CIRCUITS, ETC.)
- 21) THESE DRAWINGS DO NOT SUPERSEDE THE CONTRACT DRAWINGS AND SPECIFICATIONS, THEY ARE INTENDED AS A SUPPLEMENT ONLY AND MUST BE USED IN CONJUNCTION WITH THE CONTRACT DOCUMENTS. THEY DO NOT MODIFY THE CONTRACTORS OBLIGATIONS TO CONFORM TO THE PROJECTS ORIGINAL DESIGN CRITERIA.

## FIRE ALARM SYMBOL LEGEND

SYMBOL	QTY	DESCRIPTION	MODEL #	BACKBOX/DIMENSIONS
	8	HORN/STROBE	GC-HDVM	4" SQ BOX 2 1/8" DEEP CEILING MOUNTED
	1	STROBE	GC-VM	4" SQ BOX 2 1/8" DEEP CEILING MOUNTED

## CABLE LEGEND:

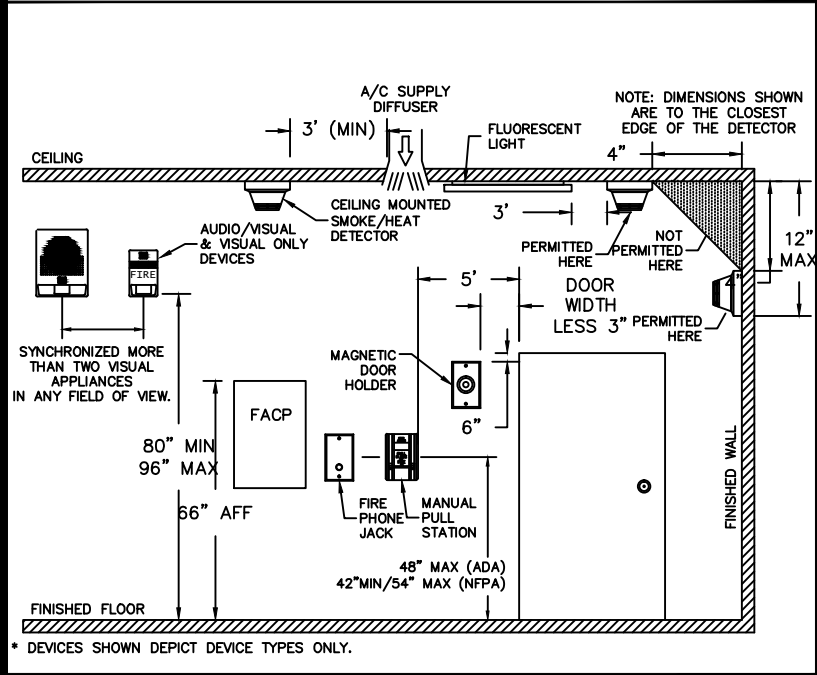
ALL WIRING AND INSTALLATION METHODS SHALL BE IN COMPLIANCE WITH CURRENT RELEVANT NATIONAL ELECTRICAL CODE ARTICLES AND RELATED SECTION CODE REQUIREMENTS.

WIRING INSTALLATION NOTES:

- \* LABEL ALL ZONE WIRES WITH ZONE NUMBER TAG AND DESCRIPTION.
- \* LABEL ALL SIGNAL CIRCUIT WIRES WITH SIGNAL CIRCUIT NUMBER TAG AND DESCRIPTION.
- \* LABEL ALL NETWORK, ANNUNCIATOR AND I/O CONTROL CIRCUIT WIRING WITH CIRCUIT NUMBER TAG AND DESCRIPTION.
- \* VERIFY WITH OWNER AND GENERAL CONTRACTOR THAT OPEN CABLE IS ALLOWED ON SPECIFIC SITE.
- \* VERIFY WITH OWNER AND GENERAL CONTRACTOR FOR ANY SPECIFIC SITE REQUIREMENTS FOR ELECTRICAL INSTALLATION OF WIRING.

Letter	Qty	Open Wiring Cable Type	Conduit Wiring Cable Type	Size	Function
C	1 Pair	FPL(P) Red/Bk	Red/Blue THHN	14	Horn / Strobe
D	2 Pair	FPL(P) Red/Bk	Red/Blue THHN	14	Horn / Strobe Loop

## MOUNTING HEIGHTS:



## VOLTAGE DROPS - NAC PANELS

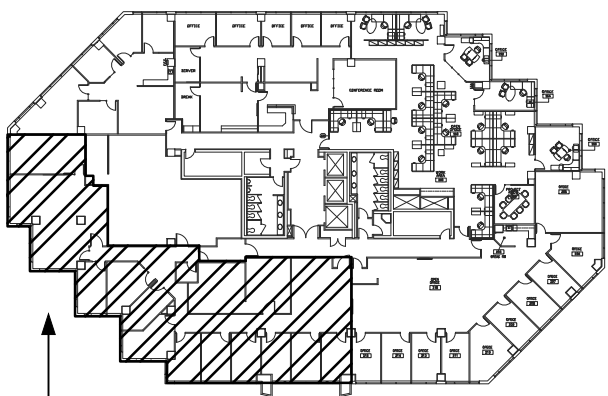
Part #	Part Description	Current (Amps)	Distance (Feet)	Voltage Drop
2 3 1	N2A-1 2ND FLOOR - MALCOLM PIRNIE T.I. - HORN-STROBES	0.640	140	0.452
1 5 1	N2A-2 2ND FLOOR - MALCOLM PIRNIE T.I. - HORN-STROBES	1.005	300	1.523
1 2 1	N2A-3 2ND FLOOR - WHY NOT YOU T.I. EXISTING - HORN-STROBES	1.879	350	3.321
4 4	N2A-4 2ND FLOOR - WHY NOT YOU T.I. EXISTING - HORN-STROBES	0.660	200	0.667
	N2A-AUX SPARE	0.000	200	0.000
Total: 8 12 2 2 2		4.184		
		Capacity Used -	64.369%	
1 1	N2B-1 2ND FLOOR - EXISTING - HORN-STROBES	1.643	250	2.074
	N2B-2 2ND FLOOR - EXISTING - HORN-STROBES	1.300	200	1.313
	N2B-3 2ND FLOOR - EXISTING - HORN-STROBES	1.300	200	1.313
	N2B-4 2ND FLOOR - EXISTING - HORN-STROBES	1.300	200	1.313
	N2B-AUX	0.000	200	0.000
Total: 0 0 1 1 0		5.543		
		Capacity Used -	88.277%	

## NAC2A PANEL BATTERY CALCULATIONS

Project Name: LENOVO T.I. @ Carillon Building 3000		Total Standby:		0.0700	Total Alarm:		3.1540
Project Number: 301-FN-F213							
Power Supply Model #: BP56A (Existing)							
Location: 2nd Floor Electrical Room							
Total Standby Current Required =		0.0700		x	24		1.6800
		Time(Hours)					
Total Alarm Current Required =		3.1540		x	0.0833		0.2627
		Time (Minutes)					
Total Standby & Current =		1.9427					
20% Depletion Factor =		0.3885					
Total Amp/Hour Required =		2.3313					
Total Amp/Hour Batteries Required =		7.0000					
Qty	Part Number	Description	Standby Current (A)	Total Standby (A)	Alarm Current (A)	Total Alarm (A)	
POWER SUPPLY							
1	BP56A	NAC PANEL	0.0700	0.0700	0.2700	0.2700	
GENESIS STROBE - CEILING MOUNTED							
8	GC-VM	15cd STROBE	0.0000	0.0000	0.0740	0.5920	
GENESIS HORN-STROBE - CEILING MOUNTED							
12	GC-HDVM	15cd HORN-STROBE	0.0000	0.0000	0.0910	1.0920	
2	GC-HDVM	30cd HORN-STROBE	0.0000	0.0000	0.1240	0.2480	
2	GC-HDVM	75cd HORN-STROBE	0.0000	0.0000	0.2190	0.4380	
2	GC-HDVM	95cd HORN-STROBE	0.0000	0.0000	0.2570	0.5140	

## NAC2B PANEL BATTERY CALCULATIONS

Project Name: LENOVO T.I. @ Carillon Building 3000					Total Standby Current (A)		0.0700			Total Alarm Current (A)		5.8130
Project Number: 301-FN-F213												
Power Supply Model #: BP56A (Existing)												
Location: 2nd Floor Electrical Room												
Total Standby Current Required =							0.0700	x	Time (Hours)		24	1.6800
Total Alarm Current Required =							5.8130	x	Time (Minutes)		0.0833	0.4842
Total Standby & Current =											2.1642	
20% Depletion Factor =											0.4328	
Total Amp/Hour Required =											2.5971	
Total Amp/Hour Batteries Required =											7.0000	
Qty	Part Number	Description	Standby Current (A)	Total Standby (A)	Alarm Current (A)	Total Alarm (A)						
POWER SUPPLY												
1		NAC PANEL	0.0700	0.0700	0.2700	0.2700						
GENESIS HORN-STROBE - CEILING MOUNTED												
1	GC-HDVM	30cd HORN-STROBE	0.0000	0.0000	0.1240	0.1240						
1	GC-HDVM	75cd HORN-STROBE	0.0000	0.0000	0.2190	0.2190						
EXISTING CIRCUITS												
	N2B-1	Existing Horn/Strobes	0.0000	0.0000	1.3000	1.3000						
	N2B-2	Existing Horn/Strobes	0.0000	0.0000	1.3000	1.3000						
	N2B-3	Existing Horn/Strobes	0.0000	0.0000	1.3000	1.3000						
	N2B-4	Existing Horn/Strobes	0.0000	0.0000	1.3000	1.3000						



Must Remain On Site

**Convergent**  
TECHNOLOGIES

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## DOCUMENTATION AVAILABLE TO CONVERGENT TECHNOLOGIES

DOCUMENTATION: JPC ARCHITECTURAL

DRAWING SHEETS: I-3.2

DRAWING DATE: 02-19-2016

FINAL REVIEW  
DONE BY:



REV	DESCRIPTION	DATE	APPROVED
0	ISSUED FOR PERMIT	04-01-2016	

DRAWN BY: TRAVIS P.  
PROJECT ENGINEER: JHUEL B.  
PROJECT MANAGER: DAVID C.  
JOB NUMBER: 301-FN-F213 (301-FN-5007)  
SCALE: 1/8" = 1'-0" DATE:

LENOVO T.I. @  
CARILLON POINT BUILDING 3000  
3260 CARILLON POINT ROAD  
KIRKLAND, WA 98033

2ND FLOOR

FIRE ALARM SYSTEM

DRAWING: FA-2.0